

Abstract of the Disclosure

A network processor that has multiple  
5 processing elements, each supporting multiple simultaneous  
program threads with access to shared resources in an interface.  
Packet data is received from ports in segments and each segment  
is assigned to one of the program threads. Ordering of segments  
within packets, and between packets from the same port, is  
10 maintained by a scheduler program thread. The scheduler program  
thread blocks a new assignment of the previously assigned port to  
a program thread until the program thread to which the port was  
previously assigned has indicated that it has completed the  
processing of the segment from that port.

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